

BookletChart™

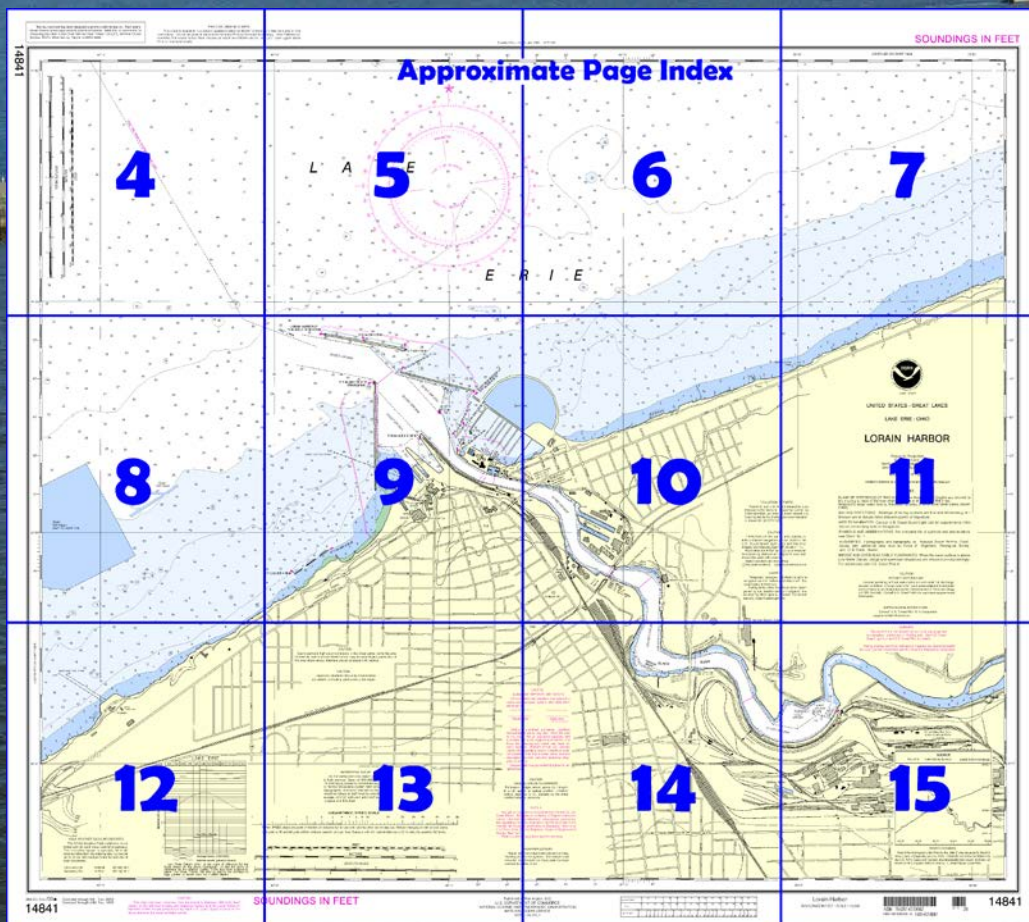
Lorain Harbor NOAA Chart 14841



A reduced-scale NOAA nautical chart for small boaters
When possible, use the full-size NOAA chart for navigation.



- Complete, reduced-scale nautical chart
- Print at home for free
- Convenient size
- Up-to-date with Notices to Mariners
- Compiled by NOAA's Office of Coast Survey, the nation's chartmaker



**Published by the
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Coast Survey
www.NauticalCharts.NOAA.gov
888-990-NOAA**

What are Nautical Charts?

Nautical charts are a fundamental tool of marine navigation. They show water depths, obstructions, buoys, other aids to navigation, and much more. The information is shown in a way that promotes safe and efficient navigation. Chart carriage is mandatory on the commercial ships that carry America's commerce. They are also used on every Navy and Coast Guard ship, fishing and passenger vessels, and are widely carried by recreational boaters.

What is a BookletChart™?

This BookletChart is made to help recreational boaters locate themselves on the water. It has been reduced in scale for convenience, but otherwise contains all the information of the full-scale nautical chart. The bar scales have also been reduced, and are accurate when used to measure distances in this BookletChart. See the Note at the bottom of page 5 for the reduction in scale applied to this chart.

Whenever possible, use the official, full scale NOAA nautical chart for navigation. Nautical chart sales agents are listed on the Internet at <http://www.NauticalCharts.NOAA.gov>.

This BookletChart does NOT fulfill chart carriage requirements for regulated commercial vessels under Titles 33 and 44 of the Code of Federal Regulations.

Notice to Mariners Correction Status

This BookletChart has been updated for chart corrections published in the U.S. Coast Guard Local Notice to Mariners, the National Geospatial Intelligence Agency Weekly Notice to Mariners, and, where applicable, the Canadian Coast Guard Notice to Mariners. Additional chart corrections have been made by NOAA in advance of their publication in a Notice to Mariners. The last Notices to Mariners applied to this chart are listed in the Note at the bottom of page 7. Coast Pilot excerpts are not being corrected.

For latest Coast Pilot excerpt visit the Office of Coast Survey website at <http://www.nauticalcharts.noaa.gov/nsd/searchbychart.php?chart=14841>



(Selected Excerpts from Coast Pilot)

Lorain Harbor, serving the city of **Lorain, Ohio**, is about 25 miles W of Cleveland Harbor. It comprises the lower 3 miles of the **Black River** and an outer harbor. An unmarked **dumping ground** with a least reported depth of 35 feet is centered about 3.5 miles N of the harbor entrance. **Prominent features.**—The ore docks on the W side of the mouth of Black River and the stacks of the powerplant 0.3 mile SW of the mouth are prominent.

Lorain Harbor Light (41°28.9'N., 82°11.7'W.), 60 feet above the water, is shown from a white tower on the W end of the detached breakwater on

the N side of the entrance channel. A fog signal is at the light. The harbor is entered through a dredged entrance channel that leads ESE from the deep water in Lake Erie on the S side of a detached breakwater, and then leads SE between converging breakwaters to the mouth of Black River. The mouth of the river is entered between parallel piers, and the dredged channel leads upstream for about 2.8 miles. A turning basin is on the SW side of the channel, 1.6 miles above the mouth and two turning basins are at the head of the project. In the outer harbor, basins are on either side of the entrance channel. From the S side of the outer harbor W basin, an approach channel leads SE to the municipal pier 0.2 mile W of the mouth of the river. Lights mark the ends of the breakwaters and the piers at the river mouth. Buoys mark the E limit of the dredged basin in the outer harbor.

In April 2004, the controlling depths were 25.1 feet (26.7 feet at midchannel) to the Lorain Yacht Basin, thence 23.9 feet (except for lesser depths to 19.5 feet along the channel edges) to the 21st Street bridge, thence 19.2 feet to the head of the project (except for lesser depths to 17 feet at the head of the project.) The turning basin on the SW side of the channel, 1.6 miles above the mouth, had depths of 16 to 20 feet. The two turning basins at the head of the project, one on the N side and the other at the head, had depths of 14 to 18 feet and 6 to 10 feet, respectively. The depths in both the E and W basins of the outer harbor were 20 to 23 feet with lesser depths along the edges.

A semicircular diked disposal area is on the NE side of the E breakwater. A floating breakwater extends about 750 feet at right angles from the SW side of the same breakwater.

Several detached shoals are in the approach to Lorain Harbor. A shoal with least depths of 22 feet extends 1.4 miles from shore within 2 miles E of the harbor entrance. Several shoal spots with depths of 24 to 28 feet are from 1.4 to 2.4 miles N of Lorain Harbor Light.

Marinas in Lorain Harbor are in the outer harbor E of the river mouth, on the NE side of the river just inside the mouth, on the E side of the river just upstream of the Erie Avenue bridge and further upstream on the N side, just past the railroad bridge. Gasoline, diesel fuel, water, ice, sewage pump-out facilities, and some marine supplies are available. A 50-ton travel lift is available at the Marina on the E side of the river, just upstream of the Erie Avenue bridge. Engine repairs are made at a boatyard on the NE side of the river just upstream of the Erie Avenue bridge, a 30-ton hoist is also available.

Dangers.—Several detached shoals are in the approach to Lorain Harbor. A shoal with least depths of 22 feet extends 1.4 miles from shore within 2 miles E of the harbor entrance. Several shoal spots with depths of 24 to 28 feet are from 1.4 to 2.4 miles N of Lorain Harbor Light.

Lorain is a **customs station**.

Quarantine is enforced in accordance with the regulations of the U.S. Public Health Service. (See Public Health Service, chapter 1.)

Harbor regulations.—A **speed limit** of 6 mph (5.2 knots) is enforced in the harbor except in the outer harbor where it is 10 mph (8.7 knots). (See **33 CFR 162.160 and 207.570**, chapter 2, for regulations.)

Small-craft facilities.—Marinas in Lorain Harbor are in the outer harbor east of the river mouth, on the northeast side of the river just inside the mouth, on the east side of the river just upstream of the Erie Avenue bridge and further upstream on the north side, just past the railroad bridge. Gasoline, diesel fuel, water, ice, sewage pump-out facilities, and some marine supplies are available. A 50-ton travel lift is available at the Marina on the east side of the river, just upstream of the Erie Avenue bridge.

U.S. Coast Guard Rescue Coordination Center 24 hour Regional Contact for Emergencies

RCC Cleveland

Commander

9th CG District

Cleveland, OH

(216) 902-6117

Table of Selected Chart Notes

Corrected through NM Jul. 19/08
Corrected through LNM Jul. 8/08

Polyconic Projection
Scale 1:10,000
North American Datum of 1983
(World Geodetic System 1984)

SOUNDINGS IN FEET

26.2	25.7	29.0	26.4
25.0	26.6	27.5	23.6
15.9	17.3	18.5	20.9
19.3	16.4	14.5	16.2

CAUTION BASCULE BRIDGE CLEARANCES

For bascule bridges, whose spans do not open to a full upright or vertical position, unlimited vertical clearance is not available for the entire charted horizontal clearance.

CAUTION

Temporary changes or defects in aids to navigation are not indicated on this chart. See Local Notice to Mariners.

During some winter months or when endangered by ice, certain aids to navigation are replaced by other types or removed. For details see U.S. Coast Guard Light List.

NOAA WEATHER RADIO BROADCASTS

The NOAA Weather Radio stations listed below provide continuous weather broadcasts. The reception range is typically 20 to 40 nautical miles from the antenna site, but can be as much as 100 nautical miles for stations at high elevations.

Cleveland, OH	KHB-59	162.550 MHz
Sandusky, OH	KHB-97	162.400 MHz

CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117.

Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution.

Station positions are shown thus:
○ (Accurate location) ◌ (Approximate location)

RADAR REFLECTORS

Radar reflectors have been placed on many floating aids to navigation. Individual radar reflector identification on these aids has been omitted from this chart.

HORIZONTAL DATUM

The horizontal reference datum of this chart is North American Datum of 1983 (NAD 83), which for charting purposes is considered equivalent to the World Geodetic System 1984 (WGS 84). Geographic positions referred to the North American Datum of 1927 must be corrected an average of 0.133' northward and 0.452' eastward to agree with this chart.

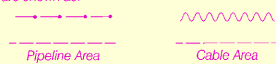
POLLUTION REPORTS

Report all spills of oil and hazardous substances to the National Response Center via 1-800-424-8802 (toll free), or to the nearest U.S. Coast Guard facility if telephone communication is impossible (33 CFR 153).

CAUTION

SUBMARINE PIPELINES AND CABLES

Charted submarine pipelines and submarine cables and submarine pipeline and cable areas are shown as:



Additional uncharted submarine pipelines and submarine cables may exist within the area of this chart. Not all submarine pipelines and submarine cables are required to be buried, and those that were originally buried may have become exposed. Mariners should use extreme caution when operating vessels in depths of water comparable to their draft in areas where pipelines and cables may exist, and when anchoring, dragging, or trawling.

Covered wells may be marked by lighted or unlighted buoys.

NOTE A

Navigation regulations are published in Chapter 2, U.S. Coast Pilot 6. Additions or revisions to Chapter 2 are published in the Notice to Mariners. Information concerning the regulations may be obtained at the Office of the Commander, 9th Coast Guard District in Cleveland, Ohio or at the Office of the District Engineer, Corps of Engineers in Buffalo, New York.

Refer to charted regulation section numbers.

Low Water Datum, which is the plane of reference for the levels shown on the above hydrograph, is also the plane of reference for the charted depths. If the lake level is above or below Low Water Datum, the existing depths are correspondingly greater or lesser than the charted depths.

SOURCE DIAGRAM

Most of the hydrography identified by the letter "J" was surveyed by the U.S. Army Corps of Engineers prior to 1974. Channels currently maintained by the U.S. Army Corps of Engineers are periodically resurveyed and are not shown on this diagram. Refer to Chapter 1, United States Coast Pilot.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

CAUTION

POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

TABULATED FROM SURVEYS BY THE CORPS OF ENGINEERS - SURVEYS TO AUG 2010 AND RE

NTROLLING DEPTHS FROM SEAWARD IN FEET AT GREAT LAKES LOW WATER DATUM (LWD)

NAME OF CHANNEL	LEFT OUTSIDE	LEFT INSIDE	RIGHT INSIDE	RIGHT OUTSIDE	DATE OF SURVEY
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Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.

PLANE OF REFERENCE OF THIS CHART. (Low Water Datum) Depths are referred to the sloping surface of the river when Lake Erie is at elevation 569.2 feet. Referred to mean water level at Rimouski, Quebec, International Great Lakes Datum (1985).

AIDS TO NAVIGATION. Consult U.S. Coast Guard Light List for supplemental information concerning aids to navigation.

SAILING DIRECTIONS. Bearings of sailing courses are true and distances given thereon are in statute miles between points of departure.

BRIDGE AND OVERHEAD CABLE CLEARANCES. When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

AUTHORITIES. Hydrography and topography by National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Geological Survey, and U.S. Coast Guard.

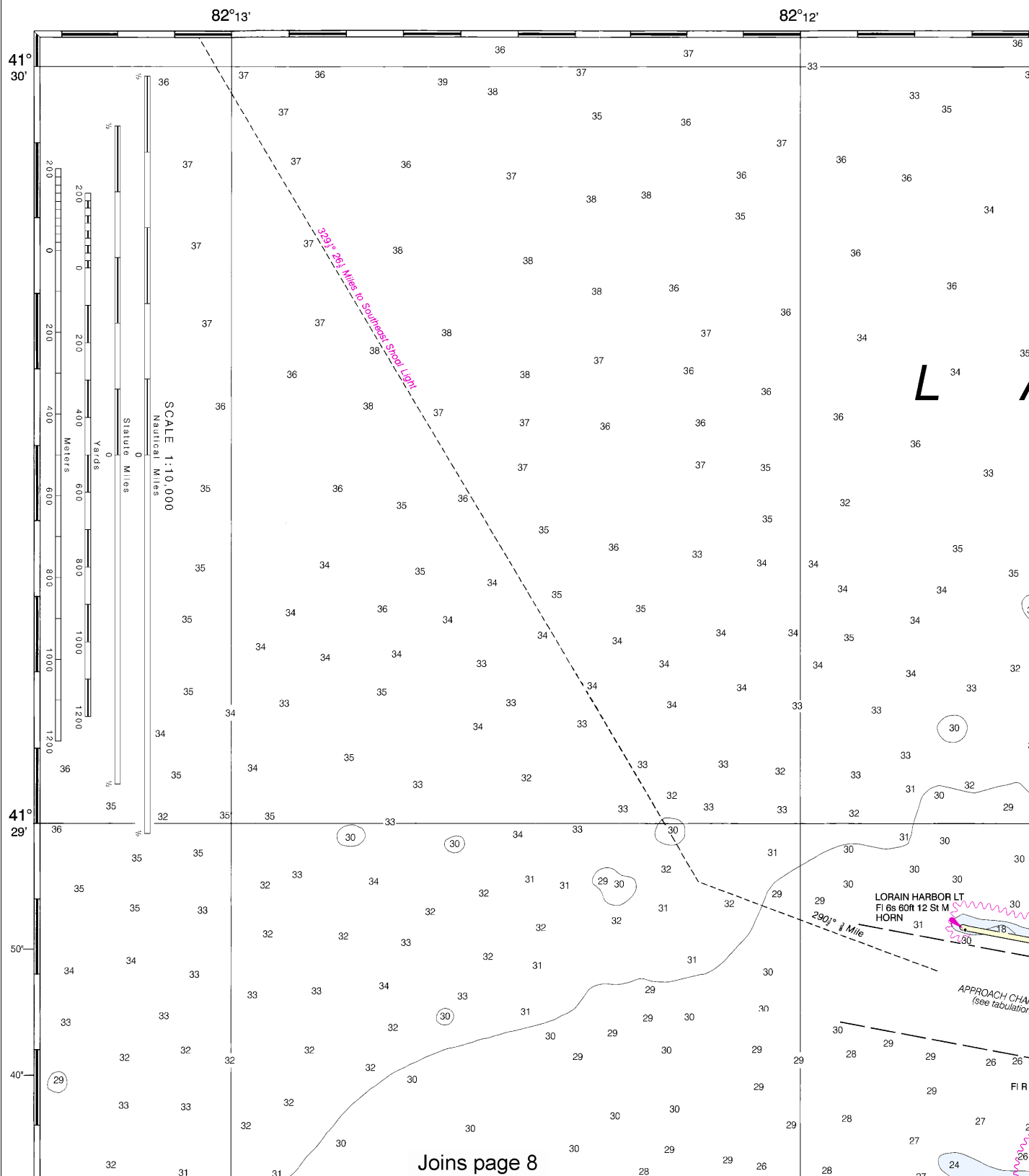
SYMBOLS AND ABBREVIATIONS. For complete list of symbols and abbreviations see Chart No. 1.

This nautical chart has been designed to promote safe navigation. The National Ocean Service encourages users to submit corrections, additions, or comments for improving this chart to the Chief, Marine Chart Division (N/CS2), National Ocean Service, NOAA, Silver Spring, Maryland 20910-3282.

PRINT-ON-DEMAND CHARTS

This chart is available in a version updated weekly by NOAA for Notices to Mariners and critical corrections. Charts are printed when ordered using Print-on-Demand technology. New Editions are available 5-8 weeks before their release as traditional NOAA charts. Ask your chart agent about Print-on-Demand charts.

14841



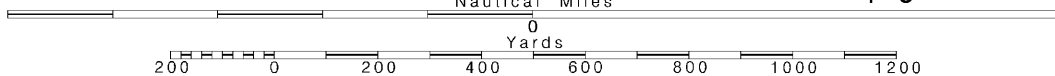
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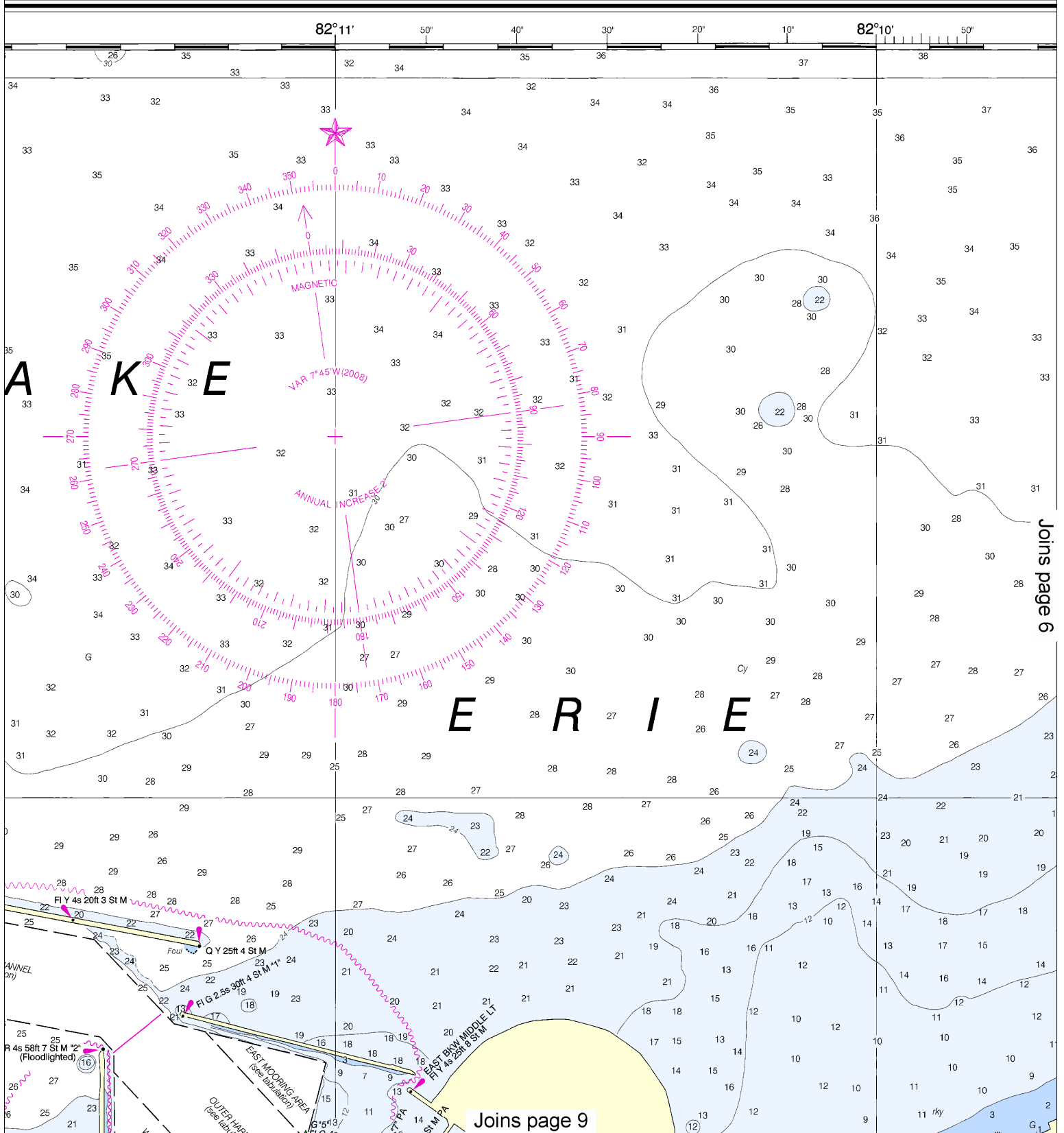
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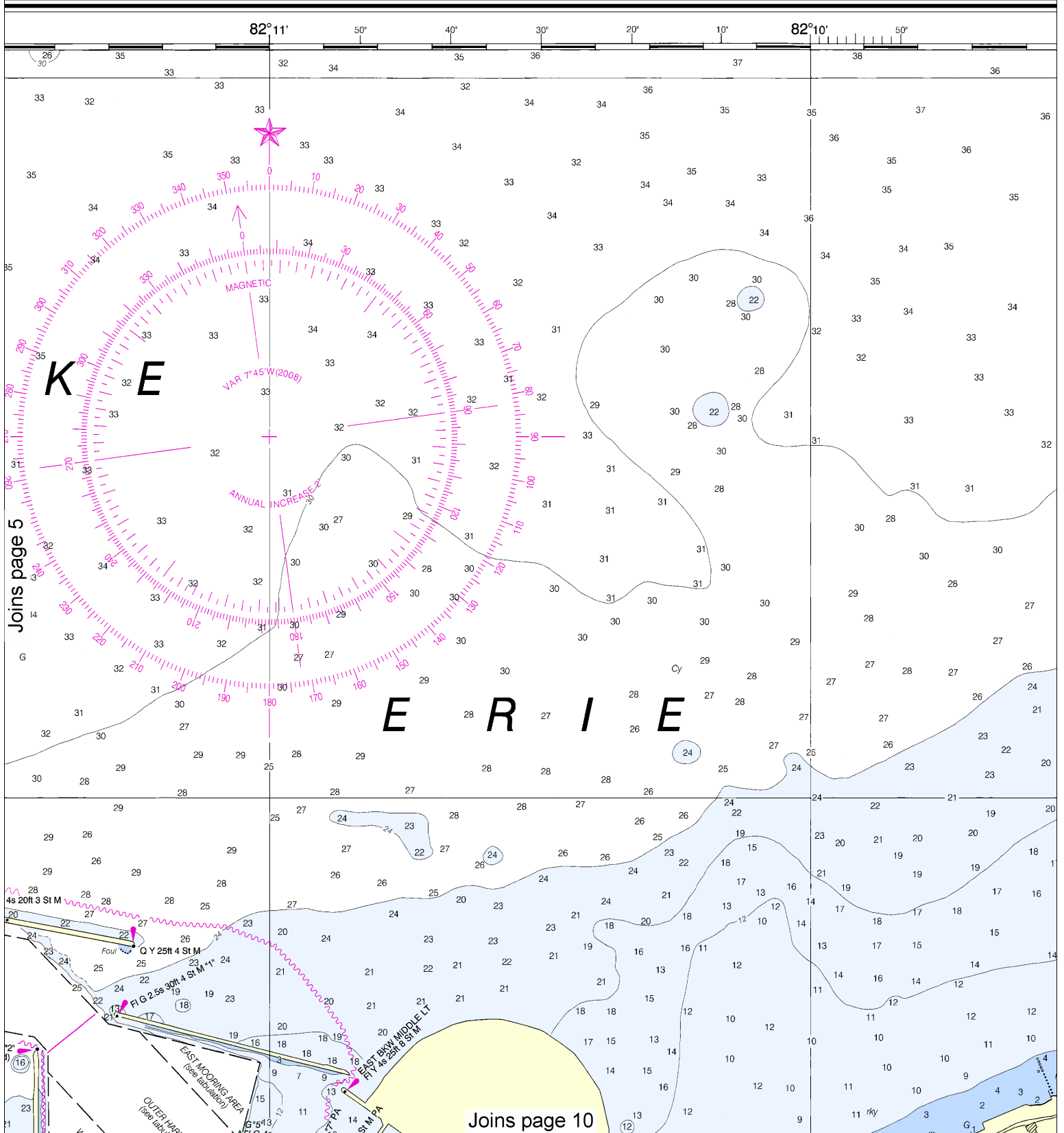
SCALE 1:10,000

See Note on page 5.





This BookletChart was reduced to 75% of the original chart scale.
The new scale is 1:13333. Barscales have also been reduced and
are accurate when used to measure distances in this BookletChart.

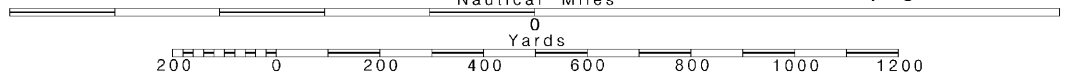


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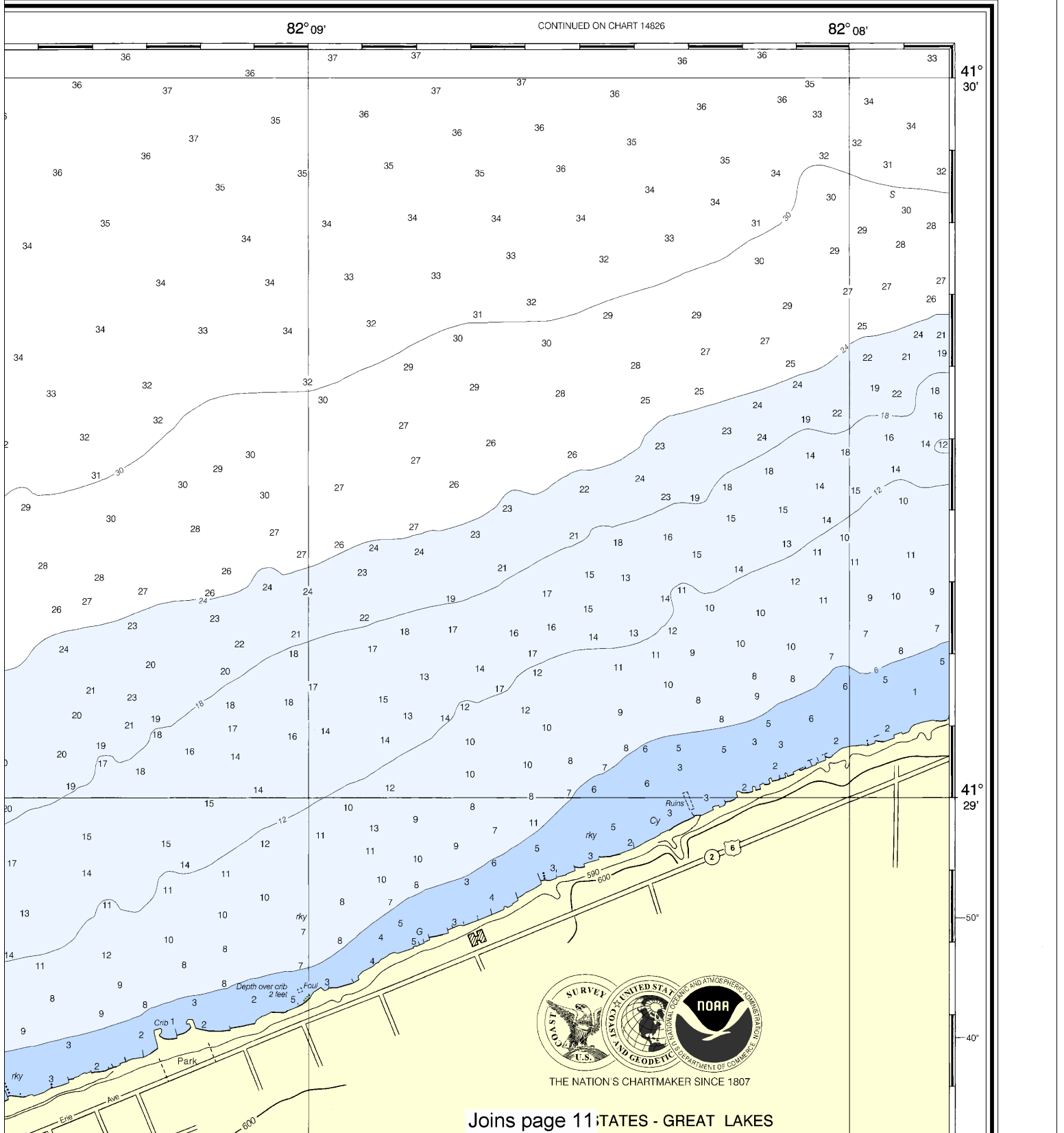
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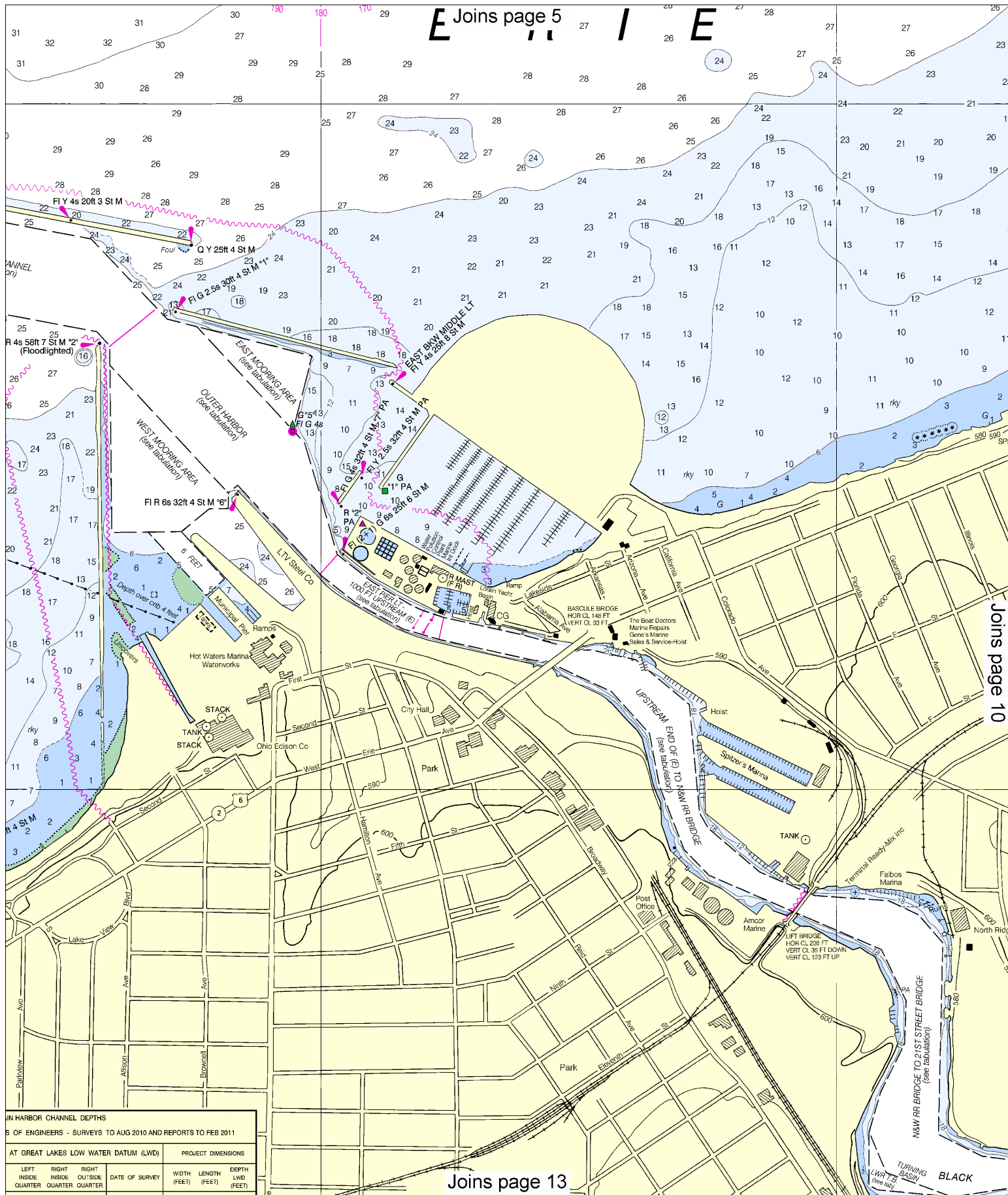
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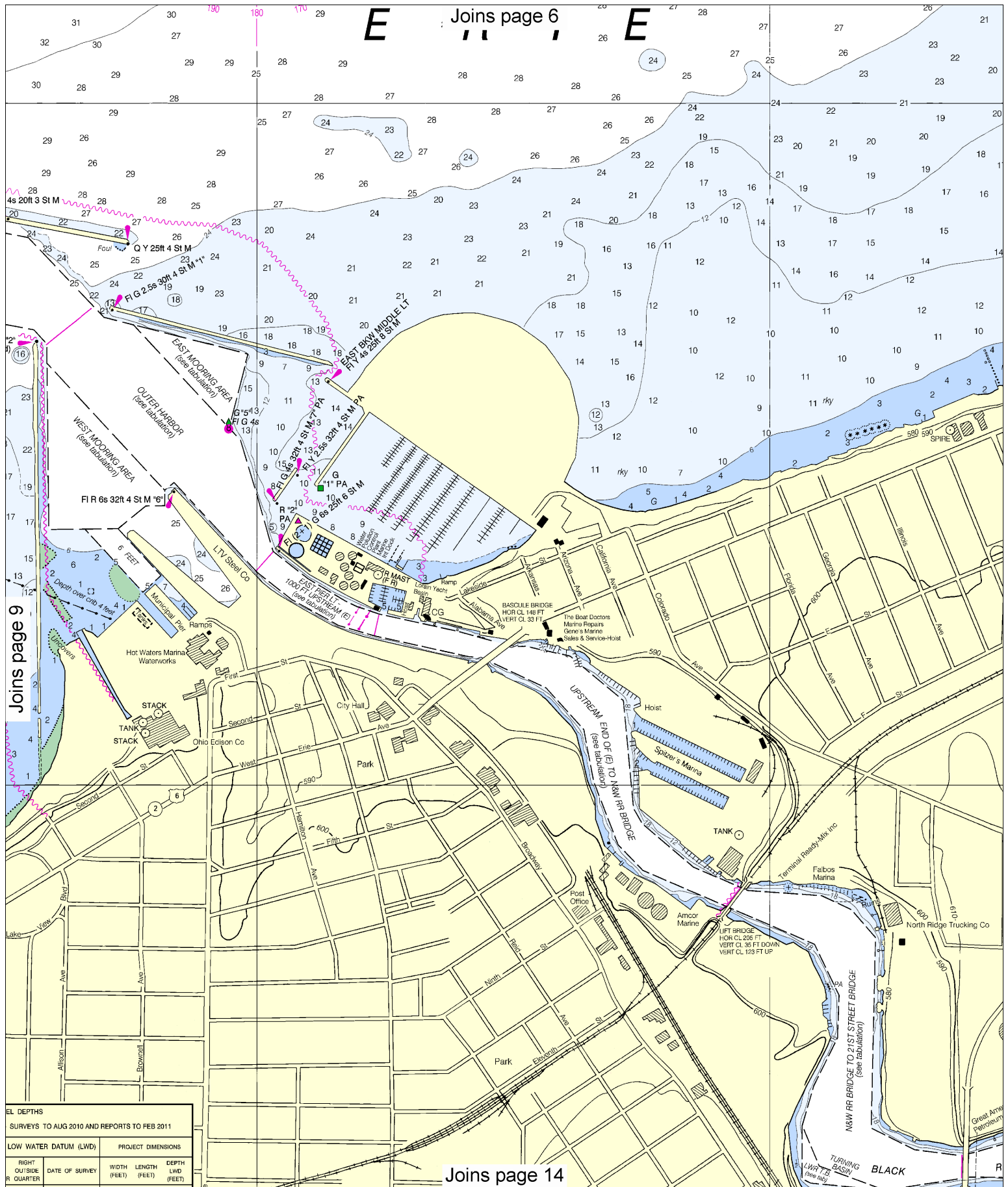
SOUNDINGS IN FEET



This BookletChart has been updated through: Coast Guard Local Notice To Mariners: 4712 11/20/2012,
 NGA Weekly Notice to Mariners: 4812 12/1/2012,
 Canadian Coast Guard Notice to Mariners: 1012 10/26/2012.



IN HARBOR CHANNEL DEPTHS				PROJECT DIMENSIONS		
S OF ENGINEERS - SURVEYS TO AUG 2010 AND REPORTS TO FEB 2011				DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)
LEFT QUARTER	RIGHT INSIDE QUARTER	RIGHT OUTSIDE QUARTER	DATE OF SURVEY	WIDTH (FEET)	LENGTH (FEET)	DEPTH LWD (FEET)

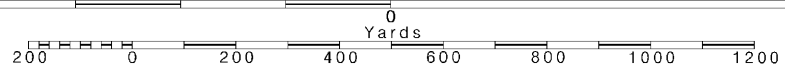


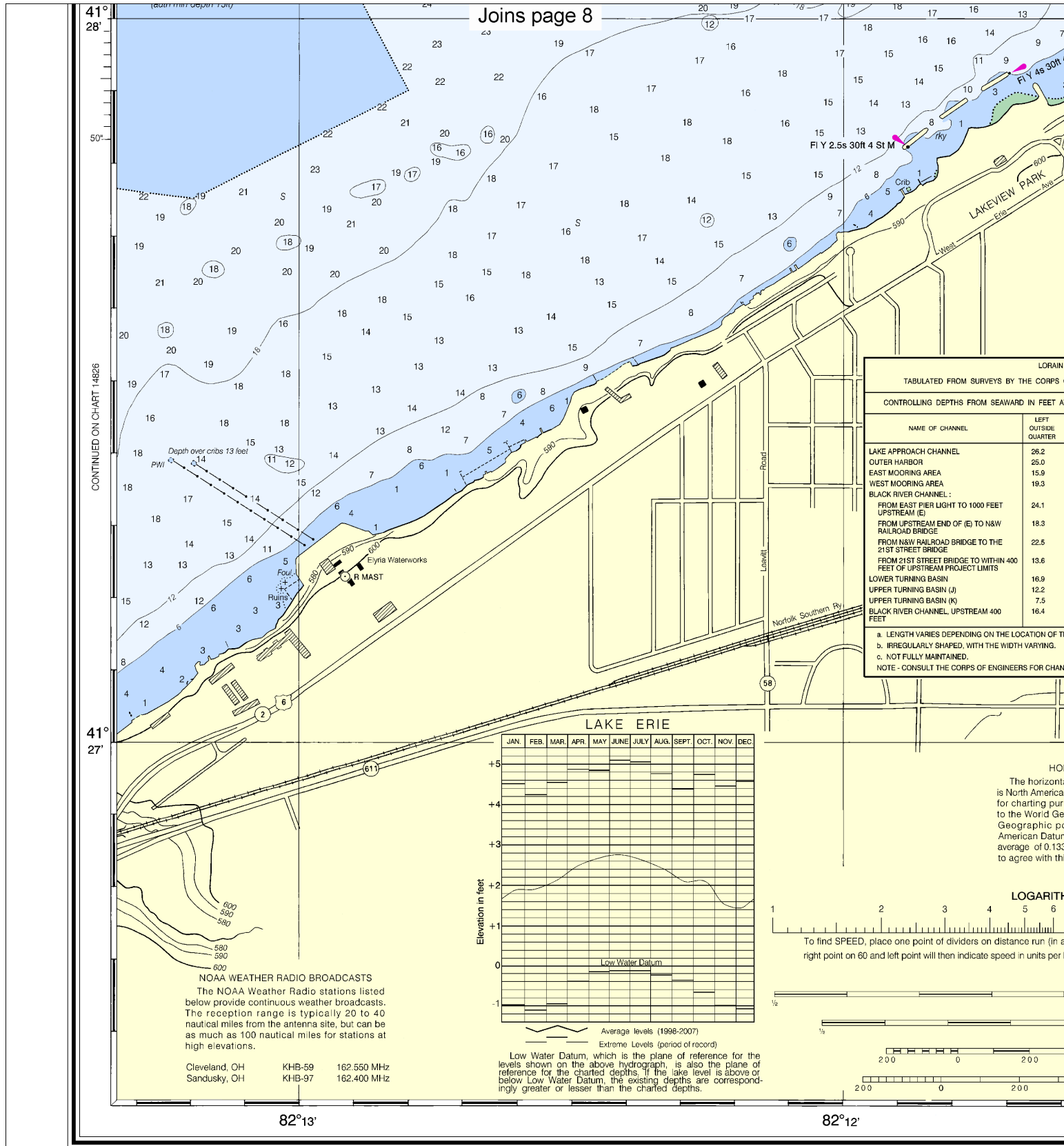
10

Note: Chart grid lines are aligned with true north.

Printed at reduced scale. — SCALE 1:10,000 —
Nautical Miles

See Note on page 5.





29th Ed., Jul. / 08 ■ Corrected through NM Jul. 19/08
14841 Corrected through LNM Jul. 8/08

CAUTION
This chart has been corrected from the Notice to Mariners (NM) published weekly by the National Geospatial-Intelligence Agency and the Local Notice to Mariners (LNM) issued periodically by each U.S. Coast Guard district to the dates shown in the lower left hand corner. Chart updates corrected from Notice to Mariners published after the dates shown in the lower left hand corner are available at nauticalcharts.noaa.gov.

SOUNDINGS IN F

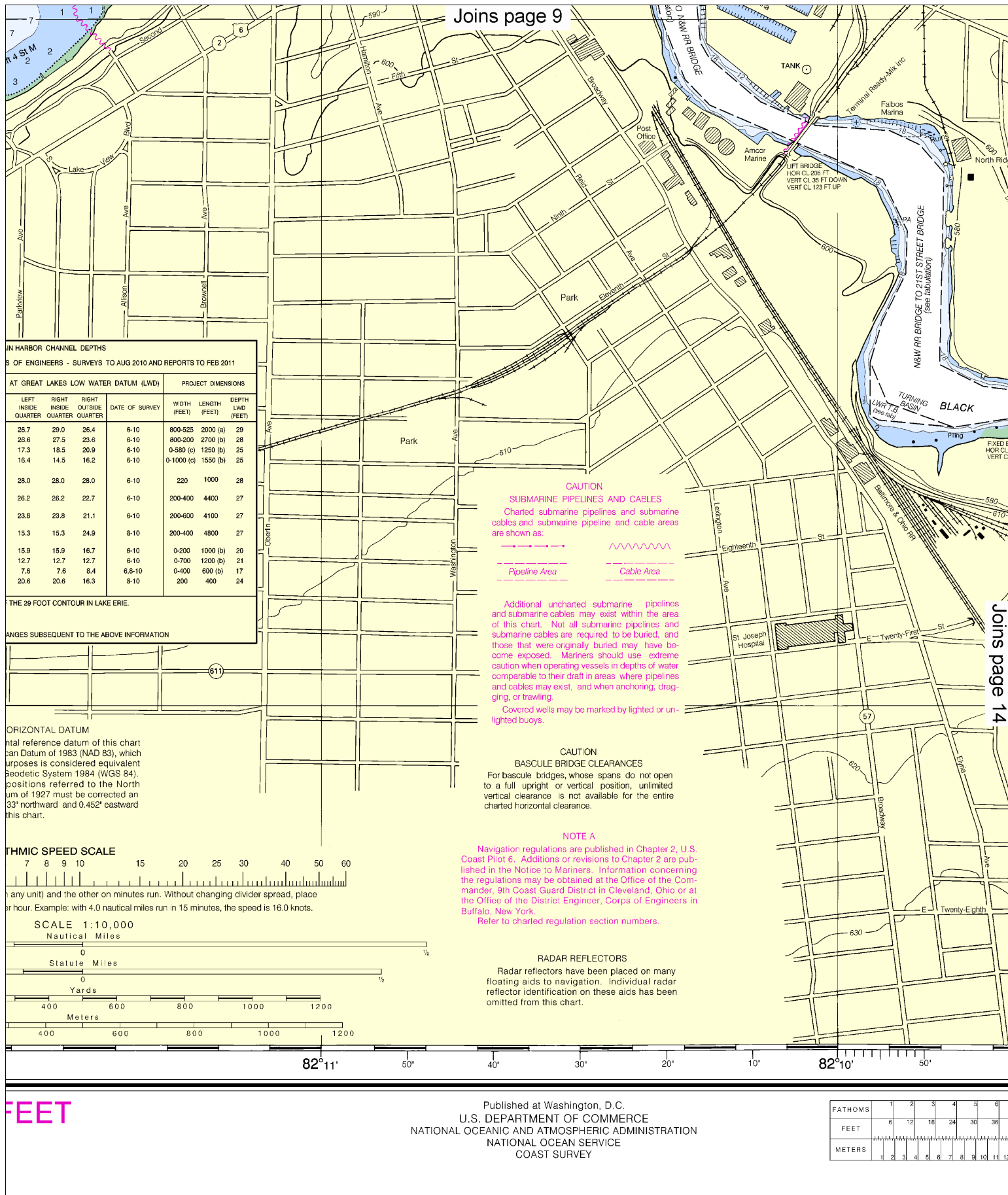
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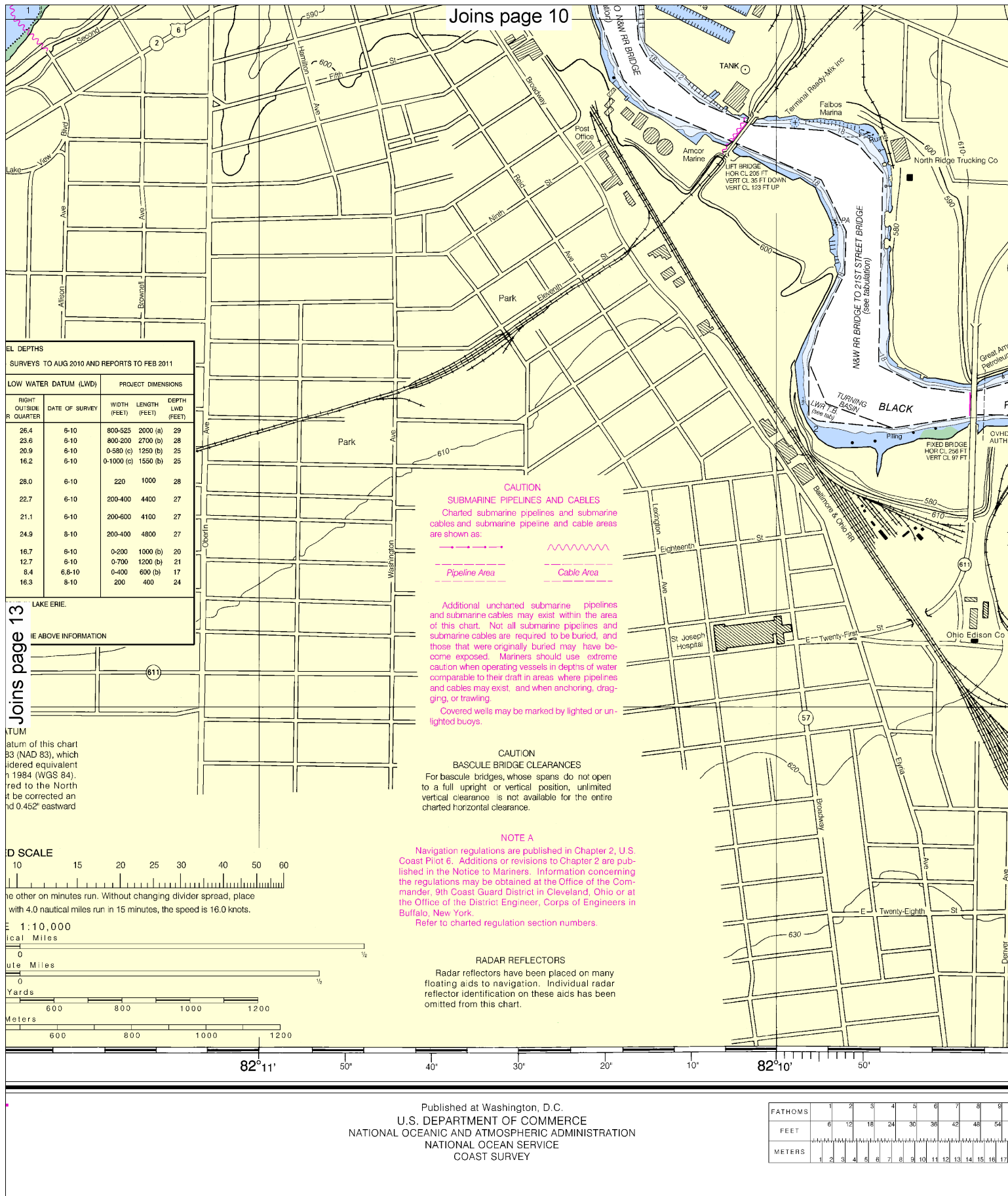
Note: Chart grid lines are aligned with true north.

Printed at reduced scale. — SCALE 1:10,000 —
Nautical Miles

See Note on page 5.

0
Yards
200 0 200 400 600 800 1000 1200





CAUTION

Limitations on the use of radio signals as aids to marine navigation can be found in the U.S. Coast Guard Light Lists and National Geospatial-Intelligence Agency Publication 117. Radio direction-finder bearings to commercial broadcasting stations are subject to error and should be used with caution. Station positions are shown thus:
 (●) (Accurate location) (○) (Approximate location)

CAUTION

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SYMB Joins page 11 S. For complete list of symbols and abbreviations see Chart No. 1.

AUTHORITIES. Hydrography and topography by National Ocean Service, Coast Survey with additional data from the Corps of Engineers, Geological Survey, and U. S. Coast Guard.

BRIDGE AND OVERHEAD CABLE CLEARANCES When the water surface is above Low Water Datum, bridge and overhead clearances are reduced correspondingly. For clearances see U.S. Coast Pilot 6.

CAUTION

POTABLE WATER INTAKE

Vessels operating in fresh water lakes or rivers shall not discharge sewage, or ballast, or bilge water within such areas adjacent to domestic water intakes as are designated by the Commissioner of Food and Drugs (21 CFR 1250.93). Consult U.S. Coast Pilot 6 for important supplemental information.

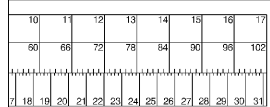
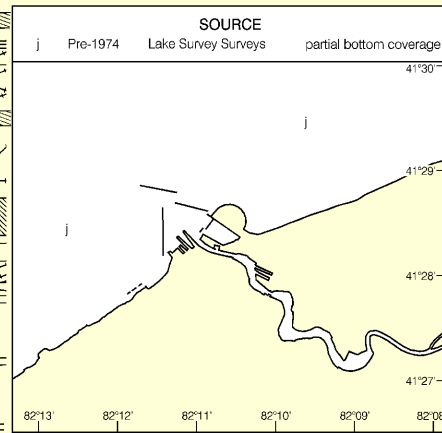
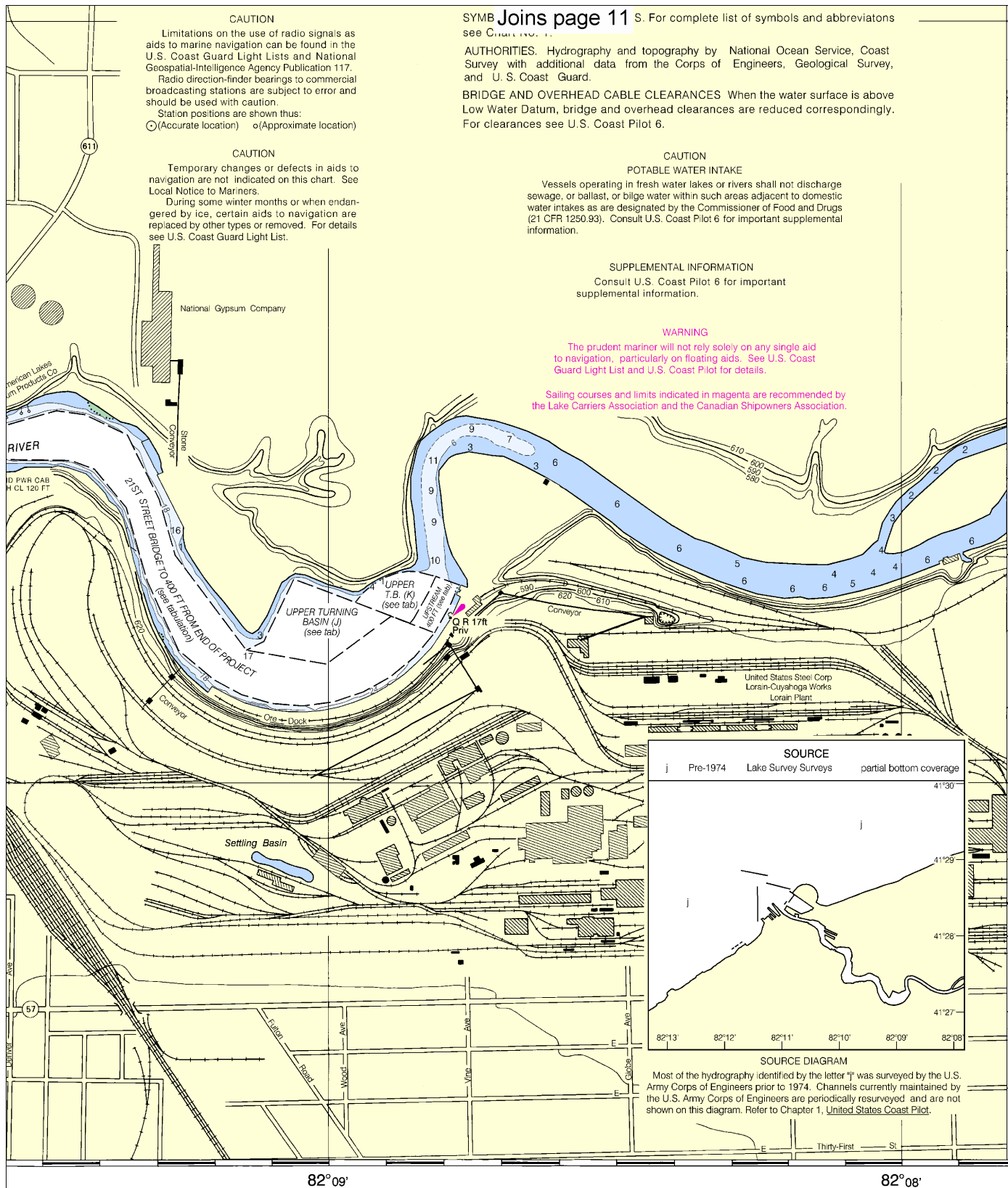
SUPPLEMENTAL INFORMATION

Consult U.S. Coast Pilot 6 for important supplemental information.

WARNING

The prudent mariner will not rely solely on any single aid to navigation, particularly on floating aids. See U.S. Coast Guard Light List and U.S. Coast Pilot for details.

Sailing courses and limits indicated in magenta are recommended by the Lake Carriers Association and the Canadian Shipowners Association.



Lorain Harbor
 SOUNDINGS IN FEET - SCALE 1:10,000

NSN 7642014010662
 NGA REFERENCE NO. 14XHA14841

ED. NO. 29

14841



VHF Marine Radio channels for use on the waterways:

Channel 6 – Inter-ship safety communications.

Channel 9 – Communications between boats and ship-to-coast.

Channel 13 – Navigation purposes at bridges, locks, and harbors.

Channel 16 – Emergency, distress and safety calls to Coast Guard and others, and to initiate calls to other

vessels. Contact the other vessel, agree to another channel, and then switch.

Channel 22A – Calls between the Coast Guard and the public. Severe weather warnings, hazards to navigation and safety warnings are broadcast here.

Channels 68, 69, 71, 72 and 78A – Recreational boat channels.

Getting and Giving Help — Signal other boaters using visual distress signals (flares, orange flag, lights, arm signals); whistles; horns; and on your VHF radio. You are required by law to help boaters in trouble. Respond to distress signals, but do not endanger yourself.

Distress Call Procedures

- Make sure radio is on.
- Select Channel 16.
- Press/Hold the transmit button.
- Clearly say: "MAYDAY, MAYDAY, MAYDAY."
- Also give: Vessel Name and/or Description; Position and/or Location; Nature of Emergency; Number of People on Board.
- Release transmit button.
- Wait for 10 seconds — If no response Repeat MAYDAY call.

HAVE ALL PERSONS PUT ON LIFE JACKETS!



NOAA Weather Radio All Hazards (NWR) is a nationwide network of radio stations broadcasting continuous weather information directly from the nearest National Weather Service office. NWR broadcasts official Weather Service warnings, watches, forecasts and other hazard information 24 hours a day, 7 days a week.

<http://www.nws.noaa.gov/nwr/>

Quick References

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Chart and chart related inquiries and comments	—	http://ocsddata.ncd.noaa.gov/idrs/inquiry.aspx?frompage=ContactUs
Chart updates (LNM and NM corrections)	—	http://www.nauticalcharts.noaa.gov/mcd/updates/LNM_NM.html
Coast Pilot online	—	http://www.nauticalcharts.noaa.gov/nsd/cpdownload.htm
Tides and Currents	—	http://tidesandcurrents.noaa.gov
Marine Forecasts	—	http://www.nws.noaa.gov/om/marine/home.htm
National Data Buoy Center	—	http://www.ndbc.noaa.gov/
NowCoast web portal for coastal conditions	—	http://www.nowcoast.noaa.gov/
National Weather Service	—	http://www.weather.gov/
National Hurricane Center	—	http://www.nhc.noaa.gov/
Pacific Tsunami Warning Center	—	http://ptwc.weather.gov/
Contact Us	—	http://www.nauticalcharts.noaa.gov/staff/contact.htm



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This Booklet chart has been designed for duplex printing (printed on front and back of one sheet). If a duplex option is not available on your printer, you may print each sheet and arrange them back-to-back to allow for the proper layout when viewing.

NOAA's Office of Coast Survey



The Nation's Chartmaker